

SYSTEM AND METHOD FOR MANAGING A COUPON

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BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a system and a method for managing a coupon transmitted or
5 broadcasted using a network or radio wave. More particularly, the invention relates to a system and a method for managing a coupon which permits effective use of electronic coupon distribution history and program information for marketing (for example,
10 audience rating measurement of program or commercial message, broadcasting period, number of times, determination of fee and so forth) when the electronic coupon is distributed, obtained or used through broadcasting.

15 Description of the Related Art

In JP-A-10-108145 as prior art, a coupon indirect information as information for issuing coupon is broadcasted from a service provider system of a center. A broadcasted information receiving terminal
20 device of audience receives and accumulates the coupon indirect information and issues a coupon. Also, JP-A-10-108145 also discloses notifying of individual information of the audience or the like to a coupon issuer, classifying the coupon in audience rating

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survey of broadcasted programs with taking
classification information in the coupon indirect
information as particular classification content, and
classifying the coupon with specifying classification
5 information in the coupon indirect information to
information of sponsor presenting the broadcasted
program and so forth.

On the other hand, in the broadcasting
system, information what reaction the audience had for
10 the program, is important. Conventionally, as
information for judgment of reaction to the program,
audience rate of the broadcasted program has been used.
Since it can be judged that the program having high
program audience rate should have large effect of a
15 commercial message (CM). Therefore, it becomes easy to
fond sponsors who are willing to invest for such
program. Also, the CM fee is determined with taking
program audience rate as indicia, such that
broadcasting fee for CM becomes higher at a time zone
20 when program audience rate is high. A method for
audience rating survey has been disclosed in JP-A-11-
275607.

In the invention disclosed in JP-A-10-108145,
coupon for sales promotion of commercial products is
25 used. However, it has not been considered to use the
coupon for the purpose other than sales promotion (for
example, survey of program audience rate or
advertisement effect, marketing and so forth).

On the other hand, a method for determining CM fee as indicia of a program audience rate is to determine CM fee depending upon the audience rate of the program, in which the commercial message is to be inserted, and not to determine the CM fee depending upon the audience rate of the commercial message actually broadcasted or the audience rate of the program, in which the commercial message has been inserted. Therefore, it is possible that the sponsor may not attain the advertisement effect comparable with the CM fee.

SUMMARY OF THE INVENTION

An object of the present invention is to provide a system and a method for managing coupon which can directly see an advertisement effect of a program or commercial message.

The present invention transmits or broadcasts coupon information together with a program or commercial message from a broadcasting/transmitting system to a receiving system. The receiving system generates a coupon issuance request on the basis of the coupon information, attaches the identifier of the program or commercial message for which the coupon issuance request is demanded, to the coupon issuance request, transmits the coupon issuance request added the identifier from the receiving system to a service center. The service center issues the coupon on the

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basis of the coupon issuance request and calculates
number of issued coupons per the program or commercial
message. It should be noted that the broadcasting/
transmitting system attaches identifier of the program
5 or commercial message to be broadcasted or transmitted
together with the coupon information, to the coupon
information in order to broadcast or transmit the
coupon information attached with the identifier from
the broadcasting/transmitting system to the receiving
10 system.

The present invention transmits or broadcasts
coupon information together with a program or
commercial message from a broadcasting/transmitting
system to a receiving system. The receiving system
15 adds the identifier of the program or commercial
message on which the coupon is displayed, to the
coupon. A coupon affiliated store terminal checks used
of the coupon and use checked coupon and the coupon use
status are transmitted from the coupon affiliated store
20 terminal to a service center. The service center
calculates number of used coupons per the program or
commercial message on the basis of the use checked
coupon and the coupon use status. It should be noted
that the broadcasting/transmitting system may attach an
25 identifier of the program or commercial message to be
broadcasted or transmitted together with the coupon to
the coupon, and the coupon attached with the identifier
may be broadcasted or transmitted from the

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broadcasting/transmitting system to the receiving system.

The present invention determines period, number of times or fee for broadcasting or transmitting
5 the program or commercial message depending upon the number of the issued coupons or used coupons.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be understood more fully from the detailed description given hereinafter
10 and from the accompanying drawings of the preferred embodiment of the present invention, which, however, should not be taken to be limitative to the invention, but are for explanation and understanding only.

In the drawings:

15 Fig. 1 is a block diagram showing overall construction of the first embodiment of a system according to the present invention;

Figs. 2A and 2B are tables showing data structure of coupon distribution history data in the
20 present invention;

Figs. 3A, 3B and 3C are tables showing data structure of analysis result data in the present invention;

Figs. 4A, 4B and 4C are illustration showing
25 transition screen on audience side in the case where a coupon according to the present invention is received;

Figs. 5A and 5B are illustration showing a

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coupon and coupon information of the present invention;

Fig. 6 is a block diagram showing overall construction of the second embodiment of a system according to the present invention; and

5 Fig. 7 is an illustration showing a structure of verification screen on audience side upon embedding audience attribute of the present invention.

DESCRIPTION OF THE EMBODIMENTS

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10 The present invention will be discussed hereinafter in detail in terms of the preferred embodiment of the present invention with reference to the accompanying drawings. In the following description, numerous specific details are set forth in order to provide a thorough understanding of the
15 present invention. It will be obvious, however, to those skilled in the art that the present invention may be practiced without these specific details. In other instance, well-known structure are not shown in detail in order to avoid unnecessary obscurity of the present
20 invention.

In bidirectional broadcasting system, an electronic coupon information is broadcasted together with a program. When an electronic coupon is demanded to a service center from an audience, information which
25 program is watched, sexuality and age of audience, and so forth is managed in the service center per demanded coupon. For each coupon to be issued, individual

number (ID) is assigned so as to see which coupon is used after collecting the coupon. On the other hand, without routing via the service center, the broadcasted or transmitted coupon may be stored in a receiver. In
5 such case, upon storing the coupon, the watched program name, sexuality and age of audience and so forth are added to the coupon as related information. After collecting the coupon, the related information is managed in the service center. In the service center,
10 statistics, such as number of coupons issued or used, sexuality and age of the user (audience) and so forth, is made per each program to be broadcasted, and analysis of activities of the users is made on the basis of information depending upon difference of
15 degree of interest to the program based on the profile, such as sexuality or age and so forth and information of equipment used for carrying coupon and a period from obtaining of the coupon to use. Here, the bidirectional broadcasting system is a system in which
20 a receiver of the audience is connected to an internet and to perform action through internet relative to information obtained through a broadcasted radio wave. It should be noted that broadcasting program by radio wave may be transmitted through an electrical circuit
25 (including radio circuit and wired circuit), such as internet or the like.

The first embodiment of the present invention will be discussed hereinafter with reference to Figs. 1

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to 5.

Fig. 1 is a block diagram showing overall construction of a system including a information providing system, a broadcasting/transmitting system, a receiving system, the service center and a terminal of affiliated store of the coupon.

An information provider system 10 is a system to be used by an information provider. The information provider is a sponsor, or the like for a program to be broadcasted or transmitted, and pays a commercial message broadcasting or transmitting fee to a broadcaster transmitter for broadcasting or transmitting commercial message. A broadcasting/transmitting system 20 is a system to be used by a broadcaster/transmitter for broadcasting or transmitting coupon information together with the program or commercial message. The broadcaster/transmitter is a broadcaster, an application service provider, or an internet service provider, for example.

A receiving system 30 is a system to be used by a receiver for receiving the program or commercial message and coupon information. The receiver is an audience of the program or commercial message, for example. A service center 60 is a system to be used by a service provider managing the coupon. A coupon affiliated store terminal 50 is a system accepting use of the coupon. The broadcasting/transmitting system 20 and the service center 60, the receiving system 30 and

the service center 60, the coupon affiliated store terminal 50 and the service center 60 are connected by open network or dedicated network. The broadcasting/transmitting system 20 and the receiving system 30 are preferably connected via a broadcasted radio wave, but may be connected through open network or dedicated network. The information provider system 10 and the broadcasting/transmitting system 20, and the information provider system 10 and the service center 60 are connected by the open network or dedicated network. The broadcasting/transmitting system 20 and the service center 60 may be integral. Namely, the broadcaster/transmitter may use or possess the broadcasting/transmitting system 20 and the service center 60.

The broadcasting/transmitting system 20 has a transmitter 21 broadcasting/transmitting the program or commercial message and the coupon information, and a computer 24 determining a period, number of times or fee for broadcasting/transmitting program or commercial message depending upon number of coupons issued or used. The receiving system 30 includes a receiver 31 for receiving the program or commercial message and the coupon information, a display device 36 displaying the program or commercial message and the coupon information, an input device 37 (remote controller, keyboard, mouse, pen, touch panel and so on) receiving input from audience or the like, and an IC card 38

downloading a coupon from the receiver 31. The service center 60 has a coupon management server 61 managing the coupon.

The information provider system 10 requests
5 broadcasting/transmission of the program and commercial message under the payment of the commercial message broadcasting fee to the broadcaster/transmitter. When the information provider system 10 desires providing of coupon to the audience, a coupon information 64 is
10 provided to the service center 60. The coupon information is data for making the service center 60 to generate a coupon issuance request. A coupon management server 61 is provided in the service center 60 for managing management information 68 relating to
15 the coupon. In the management information 68, a coupon information 10, a distribution history 65 of the coupon, the coupon 66 and a analysis result 67 of the distribution history 65 to be presented to the information provider 10, are stored. After storing the
20 management information 68 in the coupon information 64, the coupon information 64 is broadcasted/transmitted by a transmitter 21 of the broadcasting/transmitting system 20 (coupon information transmission process 22). For example, when the program or the commercial message
25 and the coupon information are broadcasted utilizing satellite digital broadcasting, communication satellite broadcasting or wire broadcasting, the coupon information is preferably broadcasted by a data

broadcasting. The coupon information may be broadcasted/transmitted independently of the program or commercial message and may be broadcasted/transmitted in association with the program or commercial message.

- 5 When the receiver 31 has a accumulating function, it is possible to accumulate at least one of data of the program or commercial message and the coupon information to display the coupon information in association with displaying the program or commercial
10 message.

- The receiver 31 has a function for receiving the program or the commercial message, a function for receiving the data broadcasting, a function for receiving broadcasting schedule to be broadcasted by
15 the data broadcasting as an electronic program guide, and a function for storing a personal information of audience (audience attribute), such as name, age, sexuality, address or residence, contact address (telephone number, mail address) credit card number and
20 so forth. The audience information may also be stored in an IC card (which is different from the IC card 38) detachably loaded on the receiver 31. The receiver 31 receives the coupon information (coupon information receiving process 32) to display on the display device
25 36 for presenting to the audience.

Figs. 4A to 4C are illustrations showing a structure of transition screen on the side of audience when the coupon according to the present invention is

received. The display device 36 displays coupon
information 402 on a program display screen 401 (Fig.
4A). When the audience designates the coupon
information 402, the display device 36 displays
5 detailed information 403 of the coupon (including
application button for requesting the coupon) (Fig.
4B). Before connection to the service center 60, the
display device 36 displays "obtainer" information with
reference to audience information stored in the
10 receiver 31, and "program name", "broadcasting date and
time (and time zone)". Preferably, the display device
36 also displays information whether "obtainer"
information, "program name", ("broadcasting date and
time" and so forth may be added to a coupon issuance
15 request for requesting issuance of the coupon to the
service center 60. When the receiver 31 obtains answer
that the "obtainer" information may be added to the
coupon issuance request from the audience, the coupon
issuance request is generated on the basis of the
20 coupon information, "obtainer" information and so forth
to transmit the coupon issuance request to the service
center 60. The service center 60 generates an audience
program information of the audience and audience
attribute as the distribution history 65 and stores the
25 distribution history 65 in the coupon management server
61.

When the coupon information and the program
or commercial message are broadcasted/transmitted

independently of each other, the information relating to the program or commercial message (Fig. 2A) is added to the coupon issuance request in the receiver 31 upon transmission of the coupon issuance request. When the coupon information and the program or commercial message are broadcasted or transmitted in association, the information relating to the program or commercial message at the time of transmission of the coupon issuance request may be added to the coupon issuance request in the receiver 31 or the program or commercial message upon transmission of the coupon issuance request may be added to the coupon issuance request in the broadcasting/transmitting system 20, or in the alternative, the information relating to the program or commercial message may be broadcasted or transmitted to the service center 60 in association with broadcasting or transmission of the coupon information. The service center 60 manages the information relating to the program or commercial message with taking the coupon ID as a key.

Figs. 2A and 2B are illustration showing structure of the distribution history of the coupon according to the present invention. A distribution history data 201 at the time of issuance of the coupon includes a coupon name, a coupon ID for identifying the coupon, an issuance number of the coupon, the program name (identifier for identifying the program), program broadcasting date and time (time zone), a channel of

the program, sexuality of the obtainer, age of the obtainer, a use period of the coupon (period or date when the coupon is valid) (Fig. 2A). Furthermore, the program ID may be added.

5 The service center 60 preliminarily stores the coupon 66 in the coupon management server 61. The service center 60 generates a coupon information 64 on the basis of the coupon 66. For example, with incorporating the coupon ID in the coupon information
10 64, the coupon information 64 and the coupon 66 are correlated. Upon accepting the coupon issuance request, the service center 60 selects the coupon 66 corresponding to the coupon issuance request (e.g. the coupon 66 having the same coupon ID as the coupon ID in
15 the coupon issuance request) to generate the coupon 66. The service center 60 transmits the coupon 66 to the receiver 31 which transmitted the coupon issuance request (coupon transmitting process 63). It should be noted that when the receiver (e.g. cellular telephone,
20 portable information terminal, personal computer and so forth) other than the receiver 31 transmitted the coupon issuance request is designated as destination for sending the coupon, the service center 60 transmits the coupon 66 to the designated receiver. An address
25 of the cellular telephone, the portable information terminal, the personal computer or the like may be transmitted with the coupon issuance request, or in the alternative, may be preliminarily stored as personal

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information of the audience by the service center 60. When delivery of the coupon by post is designated, the service center 60 mails an envelop containing the coupon to the designated recipient at designated
5 address or residence. When a terminal other than a receiver 34 is designated as a recipient, the service center 60 is provided with a function for transmitting the coupon to the cellular telephone or for printing the coupon on a paper for posting so that the audience
10 30 may designate destination of the coupon to be sent, as shown in Fig. 4C.

The receiver 31 receives the coupon 66 transmitted from the service center 60 (coupon receiving process 34). When the coupon is printed on
15 the paper, it is preferred to additionally print a bar code indicative of a number unique to each coupon or to embed it by electronic-watermarking so that the printed coupon may be electronically processed after collection.

20 Figs. 5A and 5B are illustration showing structures of the coupon and the coupon information according to the present invention. The coupon 66 contains a coupon name, the coupon ID, issuance number of the coupon, coupon accepting affiliated stores, use
25 period of the coupon, use condition of the coupon (Fig. 5B). Amongst, on the display screen of the display device 36 or the like, the coupon name, name of coupon accepting affiliated store, coupon use period, coupon

use condition are displayed (Fig. 5A). The coupon 66 received by the receiver 31 is downloaded to the IC card 38, portable information terminal or the like to carry to the store for use. In the alternative, when
5 means for use with the receiver 31, the coupon may be used in the receiver 31. Here, the following discussion will be given for the case where the coupon is downloaded to the IC card 38 and the IC card 38 is carried to the store for use.

10 The receiver 31 transmits the coupon 66 to the IC card 38 loaded therein. When the IC card 38 is provided with communication function, the receiver 31 and the IC card 38 may be connected by wire or radio. The IC card 38 receives the coupon 66 (coupon receiving
15 process 39). The audience carries the IC card 38 storing the coupon 66 to the store. Upon use of the coupon 66, the audience inserts the coupon to coupon affiliated store terminal 50 (coupon transmitting process 40).

20 Upon reception of the coupon, the coupon affiliated store terminal 50 checks the coupon to indicate "used" so as to avoid redundant use of the coupon (coupon receiving and use checking process 52). The coupon affiliated store terminal 50 transmits the
25 use-checked coupon to the coupon management server 61 of the service center 60 (use-checked coupon transmitting process 51). In the alternative, the coupon affiliated store terminal 50 may transmit coupon

use status for identifying used coupon to the service center 60.

The coupon management server 61 receives the use checked coupon 66 (use-checked coupon receiving process 69). The service center 60 updates the distribution history 65 on the basis of the use-checked coupon 66. A distribution history data 202 upon use of the coupon includes coupon use date and time, coupon use medium, name of coupon accepting affiliated store (coupon affiliated store terminal) (Fig. 2B). The distribution history data 202 upon use of the coupon is added to the distribution history data 201 upon issuance of the coupon for updating the distribution history 65. The service center 60 performs analysis on the basis of the distribution history 65 in response to a demand for analysis (analyzing process 70). For example, the number of issued coupons per the program or commercial message and the number of used coupons per the program or commercial message are analyzed. The service center 60 transmits the analysis result 67 to the information provider system 10 and the broadcasting/transmitting system 20. The service center 60 obtains fees associating with coupon management and analysis from the information provider system 10.

The broadcasting/transmitting system 20 calculates the number of times or period for broadcasting the program or commercial message or the

fee for broadcasting the program or commercial message
on the basis of analysis result 67 (CM fee and the like
determination process 23). For example, the number of
times of broadcast the program or commercial message
5 becomes greater when the number of issued coupon and
the number of used coupon per the program or commercial
message are large than that when the number of issued
coupons and the number of used coupons per the program
or commercial message are small. Also, the period to
10 broadcast the program or commercial message becomes
longer when the number of issued coupons and the number
of used coupons per the program or commercial message
are large than that when the number of issued coupons
and the number of used coupons per the program or
15 commercial message are small. Furthermore, the fee
becomes higher when the number of issued coupon and the
number of used coupon per the program or commercial
message are larger than that when the number of issued
coupons and the number of used coupons per the program
20 or commercial message are small. For example, it may
also be possible to continue broadcasting or
transmitting the program or commercial message until
the number of issued coupons and the number of used
coupons reach predetermined number. The broadcasting/
25 transmitting system 20 charges a broadcasting/
transmitting fee calculated on the basis of the
analysis result 67 to the information provider system
10. Namely, the broadcasting/transmitting system 20

tolls a broadcasting/transmitting fee depending upon the audience rate of the program or commercial message actually broadcasted or transmitted from the information provider.

5 Figs. 3A to 3C show a structure of analysis result data of the present invention. Fig. 3A shows the analysis result data collected in which time zones the coupons are obtained when the coupon can be obtained at any time. From the collected data, the
10 analysis can be made on which date and in which time zone the large number of people obtain the coupon. Furthermore, by comparing the content of program in the time zone with the degree of reaction, the correlation between the program content and the reaction to the
15 coupon can be derived. Fig. 3B shows the analysis result data summing up the number of coupon obtainers and the number of users per age group of men. Fig. 3C shows the analysis result data summing up the number of coupon obtainers and the number of users per age group
20 of women. From statistics thus obtained, it can be analyzed, in which age group of men/women, the large number of coupon users belong to.

Other than the results shown in Figs. 3A to 3C, for example, by statistically collecting the data
25 of periods from the time of obtaining the coupon to the time of using the coupon per age group, the quickness of reaction to the CM can be analyzed. In the alternative, it is also possible to make analysis of

information on the correlation between the media/
equipments through which the coupons are used with the
broadcasting time zone of the audience program and so
on, to permit the analysis of statistical information
5 in multiple angle for performing the analysis of
activity pattern per age or sexuality. Furthermore, by
collecting the coupon use history of individual, the
personal preference of individual can be analyzed by
performing the analysis of the tendency of watched
10 programs and the used coupons. While discussion has
been given hereinabove for the embodiment where coupons
are distributed, it is also considered another
embodiment to manage the number unique to the coupon by
the service center 60 and to distribute the number data
15 in place of the coupon per se instead of distributing
the coupon.

The first embodiment of the present invention
had been heretofore discussed. With the shown
embodiment, the number of issued coupons and the number
20 of used coupons per the program or commercial message,
the audience rate of the program or commercial message
can be measured, and thus the advertisement effect of
the program or commercial message can be directly
measured. It is also possible to provide new
25 advertisement providing method for continuously
broadcasting or transmitting the advertisement until a
given advertisement effect can be obtained. For
example, it is possible to continue broadcasting the

coupon information until a given number of coupons are issued or collected. On the other hand, it is also possible to obtain the information of the audiences when the coupons are not used after the coupons are
5 obtained with interest. Accordingly, for the broadcaster/transmitter or information provider, the personal tastes and the advertisement effects may be measured utilizing the coupon to efficiently perform marketing. The audiences can obtain the coupons easily
10 in case of necessity by requesting the service center to transmit the coupons to the cellular telephones. On the other hand, since the program name and the user name are not written in the coupon, the coupon can be used without causing the leakage of personal
15 information to the third party, such as the coupon affiliated store terminal.

Next, the second embodiment of the present invention will be discussed with reference to Fig. 6. In Fig. 6, the same devices and same processes to those
20 in Fig. 1 will be identified by the same reference numerals, and the following discussion will be given for different processes. What is different from the first embodiment, the issuance of the coupon is not performed by the service center 60 but is performed by
25 the broadcasting/transmitting system 20. Namely, the broadcasting/transmitting system 20 receives the coupon 66 from the service center 60 and broadcasts or transmits the coupon 66 to the receiving system 30

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(coupon transmitting process 601). Upon storing the coupon 66 in the receiver 31 or upon downloading the coupon from the receiver 31 to the IC card 38, the data corresponding to the distribution history data (information upon issuance) 201 is added to the coupon as additive information (distribution information embedding process 602). When use-checked coupon is received, the service center 60 generates the distribution history 65 of the coupon and performs the analysis (analyzing process 70). Similarly to the first embodiment, the coupon 66 is downloaded to the IC card 38, the cellular telephone or portable information terminal, or is printed on the paper. When the coupon is printed on the paper, the additive information may also be printed or the additive information may be embedded using the electronic watermark technology in order to prevent to be easily read. It should be noted that, for adding the information managed by the service center 60 to the coupon, the personal information has to be embedded in the coupon. Therefore, as shown in a display screen 701 of Fig. 7, a function for requiring to the audience 30 the confirmation that the personal information is written in the coupon is provided. On the other hand, in order to avoid the third party to see the content of the coupon when the coupon is lost or to avoid the store to see the content of the coupon, it is preferred to encrypt the additive information.

With the second embodiment, the information

of the non-use person of the coupon cannot be analyzed. However, the audience may eliminate trouble for requesting the issuance of the coupon to the center.

With the first and second embodiments, the
5 information of the program broadcasted the coupon is added to the coupon. Thus, interest to the program can be statistically processed per age group. Therefore, the advertisement effect of the program can be directly appreciated. On the other hand, not only the
10 statistical information of the overall audiences but the personal information, such as the taste or the like may also be analyzed from the tendency of the watched programs and the use of coupons to permit one-to-one marketing. Furthermore, the present invention is
15 effective in providing new broadcasting advertisement method for continuing broadcasting of advertisement until a predetermined advertisement effect can be obtained, in such a manner that the broadcasting of coupon is continued until a given number of coupons are
20 collected.

For the audience, the coupon information can be obtained through broadcasting which is a general medium. On the other hand, the coupon can be used in a form of either paper or electronic data. Even in case
25 of electronic data, the use equipment can be freely selected. Therefore, the coupon can be easily used.

Although the present invention has been illustrated and described with respect to exemplary

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embodiment thereof, it should be understood by those skilled in the art that the foregoing and various other changes, omission and additions may be made therein and thereto, without departing from the spirit and scope of the present invention. Therefore, the present invention should not be understood as limited to the specific embodiment set out above but to include all possible embodiments which can be embodied within a scope encompassed and equivalent thereof with respect to the feature set out in the appended claims.

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